Change 1

Headquarters
Department of the Army
Washington, DC,

Brigade Engineer Combat Operations (Armored)

1. Change FM 5-71-3, 3 October 1995, as follows:

Remove Old Pages	Insert New Pages
vi	vi
D-1 through D-19	D-1 through D-24
Glossary-1	Glossary-1
Glossary-5 through Glossary-12	Glossary-5 through Glossary-12

2. A bar (▌) marks new or changed material.

3. File this transmittal sheet in front of the publication.

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By Order of the Secretary of the Army:

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General, United States Army
Chief of Staff

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APPENDIX D

Orders and Annexes

Orders and annexes are critical components of the engineer battalion's C^2. The brigade engineer, through the brigade commander, exercises functional control over engineer operations within the brigade sector by including critical instructions in the brigade order and the engineer annex. The supporting battalion commanders issue unit orders to exercise control over engineer forces under their command.

BRIGADE OPORD

Figure D-1, pages D-2 through D-7, is a sample format of the brigade OPORD. Paragraphs requiring engineer input contain bulletized information.

ENGINEER ANNEX

The engineer annex contains information not included in the base brigade order that is critical to the engineer plan to support the brigade's concept of the operation or required for subordinate engineer planning. It does not include instructions or orders directly to engineer units. All instructions or tasks are addressed to the supported units, not supporting engineer units. More importantly, the engineer annex covers critical aspects of the entire engineer plan, not just parts that pertain to engineer units. The engineer annex is not a replacement for an engineer battalion order. For example, it does not give subunit orders and service-support instructions to engineer units remaining under brigade control; those orders and instructions are contained in the engineer battalion order. An engineer annex should meet the following general criteria:

- Includes critical information derived from the EBA process.
- Contains all critical information and tasks not covered in the base order.
- Does not contain items covered in SOPs unless the mission requires a change to the SOP.
- Contains information and tasks directed to major subordinate elements of the brigade, not supporting engineer units.
- Avoids qualified directives and is clear, complete, brief, and timely.
- Includes only information and instructions that have been fully coordinated with other parts of the OPORD, brigade commander, and staff.

CLASSIFICATION
(Place the classification at the top and bottom of every page of the OPORD.)

Copy____of____copies
Issuing headquarters
Place of issue (coordinates)
Date-time group of signature

OPERATION ORDER _____ (code name, if used)

Reference(s): Map(s) and other references required.

Time Zone Used Throughout the Order:

Task Organization:

- Reflects the engineer task organization of the units supporting maneuver battalions, including the command or support relationship.
- Lists units under a brigade commander's control.

1. SITUATION.

a. Enemy Forces. Include recent enemy engineer activities or capabilities critical to maneuver battalion commanders or essential to understanding the supporting engineer plan.

b. Friendly Forces. Include engineer units not under brigade control that are working in the brigade's sector.

c. Attachments and Detachments.

- State the effective time for engineer task organization if it differs from other units.
- Clarify or highlight changes in engineer task organization that occur during a phase of an operation.

2. MISSION.

3. EXECUTION.

Intent

a. Concept of Operations.

(1) Maneuver.

(2) Fires.

Figure D-1. Brigade OPORD

(3) Reconnaissance and Surveillance.

(4) Intelligence.

- Include the focus of intelligence-collection efforts that impact on a maneuver plan.

- Provide subordinate units with information requirements (developed by the S2 and the brigade commander) that are command PIR.

(5) Engineer (Scheme of Engineer Operations [SOEO]).

- Describe (in narrative format) the M/S tasks that support a maneuver plan, regardless of which unit performs the task. For example, address artillery-delivered FASCAM in this paragraph.

- Explain what the essential M/S tasks are and how they support a scheme of maneuver.

- Use a maneuver unit's concept of operations as a carrier wave. (For example, generally operations are phased. A SOEO uses the same phases. [Prephase I is not a phase unless a supported unit has something called Prephase I.] If a supported unit does not use phases for its operations, a SOEO uses the same format the supported unit uses for its concept of the operation.)

- Address four areas under each phase in a SOEO (general comments, countermobility, survivability, and mobility). Address each of these in the order of priority for that particular phase. (For example, if the priority for Phase I is countermobility, survivability, and then mobility, then the comments would appear in this order: general comments, countermobility, survivability, and mobility. If the priority in Phase II changes to mobility, countermobility, and then survivability, then the comments would appear in the following order: general comments, mobility, countermobility, and survivability.) Do not address these four areas as separate bullet comments but as four clearly identified parts of a narrative. For example, the format does **not** look like the following:

  SOEO
  (1) Phase I
  (a) General...
  (b) Mobility...
  (c) Countermobility...
  (d) Survivability...

Figure D-1. Brigade OPORD (continued)

If there is no support provided in a specific area during a phase, then do not mention that type of support. (For example, if no brigade element receives survivability support during a phase, then do not mention survivability.)

- Ensure that the support addressed under each phase applies to the M/S effort that supports a maneuver unit during that phase, no matter when the effort was completed. (For example, if engineers construct three obstacle belts that support TFs during Phase III, then address the obstacle belts during that part of a SOEO that addresses Phase III. Likewise, if an engineer battalion provides breaching support to the brigade during Phase II, then address the breaching support as part of Phase II.)

- Ensure that each of the four areas covered under each phase provides a standard set of information with a general format as follows:

  — General comments. A brief, one-sentence comment about M/S support for the phase.

  — Countermobility. Each obstacle belt, in order of its priority, its intent (target, effect, and relative location), and which maneuver unit it supports. Provide execution criteria for reserve targets and situational obstacles.

  — Survivability. Explanations for each survivability task, relative location (BP, vicinity of an EA, and so forth), and which maneuver unit is supported.

  — Mobility. Explanations for each mobility task (for example, reducing obstacles, marking lanes, providing guides, and maintaining a route), relative location (route, objective, and so forth), the priority of the reduction asset used (for example, use plows first, then MICLIC), and which maneuver unit is supported.

The following is an example of an SOEO for a four-phase brigade's defensive mission. In this case, the four phases are 1) counterreconnaissance; 2) defeat of two motorized rifle regiments (MRRs) in EAs Dog and Cat; 3) counterattack by the brigade reserve to destroy the trail MRR; and 4) reorganization, reconstitution, and passing of the division reserve forward.

Figure D-1. Brigade OPORD (continued)

Example:

SOEO:

Phase I — Engineers support the brigade's counterreconnaissance fight. Engineers mark lanes on Routes Red, Blue, and Silver through all obstacles under construction to support movement of the counterreconnaissance force. Engineers emplace obstacle belt A1 to turn enemy reconnaissance elements off the covered and concealed routes forward of OP 32.

Phase II — Engineers support the brigade's fight in EAs Dog and Cat with 3 obstacle belts (A2, A3, and A4) and fighting positions in BPs Armor and Mech. A2 is coordinated with TF Armor to fix the northern MRR into EA Dog, vic PL Zinc. A3 is coordinated with TF Armor to fix the northern MRR in EA Dog. A4 is coordinated with TF Mech to fix the southern MRR vic EA Cat. The priority for survivability effort in all BPs is the fire-support team vehicle (FIST-V), M1, M2, and M3. Priority of support is TF Armor then TF Mech.

Phase III — M/S support to the brigade CATK to destroy the trail MRR. Engineers provide breaching support for TF Destroy along Axis Frog. Priority for breaching is plows, MICLIC, and dismounted engineers. Situational obstacle belt A5 (area denial artillery munition [ADAM]/ remote antiarmor mine system [RAAMS]) will disrupt the trail MRR.

Phase IV — Engineers support the brigade's reorganization and prepare to pass TF 7-7 forward as the division resumes the offensive. Engineers create and mark lanes along Routes Red and Blue to pass TF 7-7.

NOTE: Every planned obstacle belt (directed, situational, or reserve) must be addressed in a SOEO (a SOEO has no subparagraphs). Other information (zones, belts, restrictions, and so forth) is part of the coordinating instructions.

(6) Air Defense.

(7) Information Operations.

b. Tasks to Maneuver Units. List—

- Mission-essential tasks to be accomplished by a specific maneuver element.
- Mission-essential tasks to be accomplished by engineers task-organized to maneuver elements.

c. Tasks to CS Units. Include brigade-level tasks assigned to engineers retained under brigade control. List tasks to inform TF commanders of tasks under brigade control being performed by brigade-level forces.

d. Coordinating Instructions. Include—

Figure D-1. Brigade OPORD (continued)

- Critical instructions common to two or more maneuver units.
- SOP information only if it is needed for emphasis.
- Times or events in which obstacle zones become effective, if they differ from the effective time of the order.
- Any restrictions to an obstacle belt (for example, belt restrictions may preclude the use of certain types of mines or obstacles or the use of obstacles on specific routes through the zone).
- References to survivability/countermobility time lines, as applicable.
- Relevant environmental considerations/protection measures. These may be placed in an appendix to the engineer annex.

4. SERVICE SUPPORT.

a. Support Concept. Include the concept for—

- Push of Class IV/V supplies.
- Logistics support of engineers task-organized to maneuver battalions, if not listed in the service-support annex.

b. Materiel and Services.

(1) Supply. Include the—

- Allocation of Class IV or engineer Class V supplies, if not contained in the engineer annex.
- Tentative locations for the Class IV/V supply point.

(2) Transportation.

(3) Services.

c. Medical Evacuation and Hospitalization.

d. Personnel Support.

e. Civil-Military.

5. COMMAND AND SIGNAL.

Figure D-1. Brigade OPORD (continued)

a. Command.

b. Signal.

Acknowledge:

Commander's last name
Rank

OFFICIAL:
(Authentication)

Annexes:

Distribution:

CLASSIFICATION

Figure D-1. Brigade OPORD (continued)

The engineer annex includes any combination of written instructions, matrices, or overlays to convey the necessary details of the engineer plan. The engineer annex outlined in the following paragraphs provides a standard format for both offensive and defensive operations. This format standardizes the organization of information included as written instructions. The actual content depends on the type of brigade operation and engineer plan. A standardized annex format makes it easier for the engineer staff officer to remember what should be included and for subordinate staff officers to find required information. The format tailors the standard five-paragraph order to convey critical information.

Matrices may be used as part of the body of the engineer annex or as separate appendices. Matrices are used to quickly convey or summarize information not needing explanation, such as logistics allocations, obstacle-belt priorities and restrictions, or task summary (execution matrix). Finally, overlays are used to give information or instructions and expedite integration into the overall combined-arms plan. At brigade level, information included on overlays may include but is not limited to—

- All existing and proposed friendly obstacles and control measures (obstacle belts, restrictions, and lanes; directed or reserve targets; and brigade-level situational obstacles, including associated NAI/TAI and decision points).
- Known and plotted enemy obstacles (must also be on situation template).
- Logistics locations and routes, as they apply to engineer operations.
- NBC-contaminated areas.

Figure D-2, pages D-9 through D-13, is a sample format of a written engineer annex. *Figure D-3, page D-14*, provides a sample matrix and overlay.

ENGINEER UNIT ORDERS

A battalion commander uses a unit order to exercise unit control over engineer units remaining under his command. At the outset of an operation, a battalion commander uses his order to—

- Effect the necessary task organization of engineers in the brigade.
- Assign initial missions.
- Establish sustainment integration with the FSB.

Once the task organization is effective and during combat operations, the battalion commander directs subsequent unit orders only to those engineers under his command. Orders, missions, and instructions to engineers supporting maneuver battalions/TFs in command relationships are included as tasks to the battalions in brigade FRAGOs. A brigade engineer issues WOs to all engineers supporting the brigade to facilitate parallel planning within engineer units and any engineer TFs. WOs to engineers supporting maneuver battalions/TFs are used for planning only.

BRIGADE ENGINEER WO

The purpose of the WO is to help engineer staff officers and engineer units initiate planning and preparations for an upcoming operation. The WO is critical to foster parallel planning at the engineer unit and maneuver battalion levels.

Classification
(Place the classification at the top and bottom of every page of the annex.)

ANNEX ____ (ENGINEER) TO OPORD ____

1. SITUATION.

a. Enemy Forces.

(1) Terrain. Critical aspects of the terrain that impact engineer operations.

(2) Weather. Critical aspects of the weather that impact engineer operations.

(3) Enemy Engineer Capability/Activity. Include the—

- Known and plotted locations and activities of enemy engineer units.
- Significant enemy maneuver and engineer capabilities that impact engineer operations.
- Expected employment of engineers based on the most probable enemy COA.

b. Friendly Forces. List the—

- Designation, location, and activities of higher HQ and adjacent engineers impacting the brigade or requiring coordination.
- Nonengineer units capable of assisting in engineer operations.
- Nonengineer units capable of emplacing SCATMINEs.

c. Attachments and Detachments.

- List units attached or detached, only as necessary to clarify task organization.
- Highlight changes in engineer task organization occurring during operations along with effective times or events.

2. MISSION. State the mission of engineers in support of the basic OPORD.

3. EXECUTION.

a. SOEO.

- Describe (in narrative format) the M/S tasks that support a maneuver plan, regardless of which unit performs the task. For example, address artillery-delivered FASCAM in this paragraph.

Figure D-2. Engineer annex

- Explain what the essential M/S tasks are and how they support the scheme of maneuver.

- Use a maneuver unit's concept of operations as a carrier wave. (For example, generally operations are phased. A SOEO uses the same phases. [Prephase I is not a phase unless the supported unit has something called Prephase I.] If a supported unit does not use phases for its operations, a SOEO uses the same format that a supported unit uses for its concept of the operation.)

- Address four areas under each phase in a SOEO (general comments, countermobility, survivability, and mobility). Address each of these in the order of priority for that particular phase. (For example, if the priority for Phase I is countermobility, survivability, and then mobility, then the comments would appear in this order: general comments, countermobility, survivability, and mobility. If the priority in Phase II changes to mobility, countermobility, and then survivability, then the comments would appear in the following order: general comments, mobility, countermobility, and survivability.) Do not address these four areas as separate bullet comments but as four clearly identified parts of a narrative. For example, the format does **not** look like the following:

  SOEO
  (1) Phase I
  (a) General...
  (b) Mobility...
  (c) Countermobility...
  (d) Survivability...

  If there is no support provided in a specific area during a phase, then do not mention that type of support. (For example, if no brigade element receives survivability support during a phase, then do not mention survivability.)

- Ensure that the support addressed under each phase applies to the M/S effort that supports a maneuver unit during that phase, no matter when the effort was completed. (For example, if engineers construct three obstacle belts that support TFs during Phase III, then address the obstacle belts during that part of a SOEO that addresses Phase III. Likewise, if an engineer battalion provides breaching support to the brigade during Phase II, then address the breaching support as part of Phase II.)

- Ensure that each of the four areas covered under each phase provides a standard set of information with a general format as follows:

Figure D-2. Engineer annex (continued)

— General comments. A brief, one-sentence comment about M/S support for the phase.

— Countermobility. Each obstacle belt, in order of its priority, its intent (target, effect, and relative location), and which maneuver unit it supports. Provide execution criteria for reserve targets and situational obstacles.

— Survivability. Explanations for each survivability task, relative location (BP, vicinity of an EA, and so forth), and which maneuver unit is supported.

— Mobility. Explanations for each mobility task (for example, reducing obstacles, marking lanes, providing guides, and maintaining a route), relative location (route, objective, and so forth), the priority of the reduction asset used (for example, use plows first, then MICLIC), and which maneuver unit is supported.

b. Tasks to Subordinate Units.

- List engineer tasks to be accomplished by a specific subordinate unit of a brigade that are not included in the base OPORD.
- Include brigade-level tasks assigned to an engineer organization.
- Use to inform subordinate unit commanders of tasks being performed by forces under brigade control.

c. Coordinating Instructions. Include—

- Critical engineer instructions common to two or more maneuver units not already covered in the base OPORD.
- SOP information, only if needed for emphasis.
- Times or events in which obstacle belts become effective, if they differ from the effective time of the order.
- Brigade PIR that must be considered by subordinate engineer staff officers or that require reports to a brigade engineer.
- Obstacle restrictions.
- Mission reports required by a brigade engineer (if not covered in the signal paragraph or the unit's SOP).

Figure D-2. Engineer annex (continued)

- Explanation of countermobility/survivability time lines, as necessary.
- Relevant environmental considerations and protection measures. These may be placed in an appendix.

4. SERVICE SUPPORT.

a. Command-Regulated Classes of Supply.

- Highlight subunit allocations of command-regulated classes of supply that impact the operation's CSR.
- Summarize in a matrix or table.

b. Supply Distribution Plan.

- Give tentative locations for Class IV/V supply points or locations for linkup of corps push packages directly to units.
- Give the allocation of Class IV/V supplies by TF, belt, or a combination, if not summarized in a matrix or table.

c. Transportation. List the—

- Allocation and priority of support of division and brigade haul or airlift assets dedicated to moving a brigade's Class IV/V supplies.
- Requirements for the brigade to supplement division transportation of mission loads (for example, a brigade is responsible for haul forward of PL_____).

d. Combat Health Support. Address the support for corps engineer units that are performing brigade-level missions in a brigade's area.

e. Host Nation. List the—

- Type and location of HN engineer facilities, assets, or support.
- Procedures for requesting and acquiring HN engineer support.
- Limitations or restrictions on HN support (for example, HN personnel not authorized forward of PL_____).

Figure D-2. Engineer annex (continued)

5. COMMAND AND SIGNAL.

a. Command.

- List the location of key engineer leaders and C^2 nodes throughout the operation.
- Designate a logical chain of command.
- Designate the HQ that controls the effort within work lines on an area basis.

b. Signal.

- Identify communication networks monitored by a brigade engineer for reports, if different than the SOP.
- Identify the designated critical engineer reporting requirements of subordinates, if not covered in the coordinating instructions or the SOP.

Acknowledge:

Commander's last name
Rank

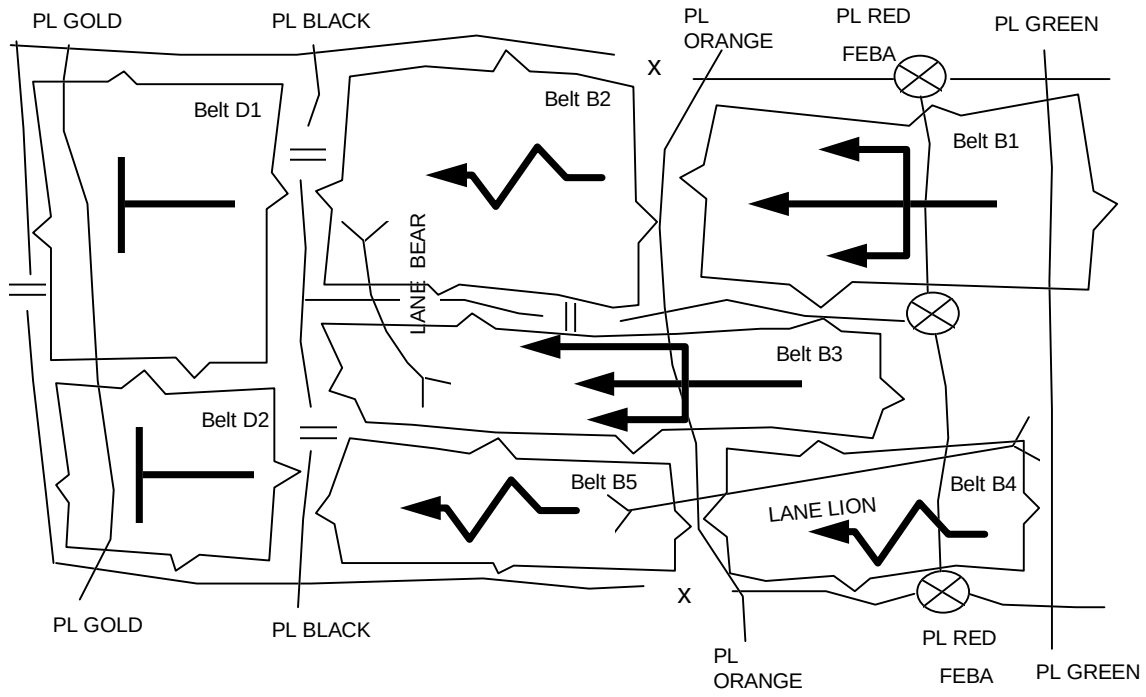
OFFICIAL:

Appendices:
1. Engineer overlay
2. Countermobility execution matrix/time line
3. Survivability execution matrix/time line
4. Obstacle execution matrix (directed, situational, and reserve)
5. Environmental considerations

Distribution:

CLASSIFICATION

Figure D-2. Engineer annex (continued)



Unit	Belt	Priority	Restrictions
TF 1-8	B1 B2	5 6	Surface-laid mines only on Lane Bear
TF 2-8	B3 B4 B5	1 3 2	Surface-laid mines only on Lane Lion No SCATMINEs
TF 3-8	D1 D2	7 4	

Figure D-3. Obstacle overlay

There is no prescribed format for the WO. It may be either written or verbal but should include the following information:

- Heading.
- Situation.
- Attachments and detachments.
- Earliest time of move.
- Nature and time of operation.
- Time and place of orders group.
- Administrative/logistical information.
- Acknowledge.

Heading

WOs must always begin with the words "Warning Order." This is to ensure that recipients understand the information is for use only as a basis for planning and will be followed by orders. Addressees should also be listed in the heading. The brigade engineer's WO to the unit should address all engineer units supporting the brigade.

Situation

This section includes a brief description of friendly and enemy situations and critical events. It may also include probable missions for the brigade and specified or implied tasks, and it may assign tentative tasks for planning only to engineer units. Situation templates and EBA products may be included with a WO if they are available.

Attachments and Detachments

This section gives tentative and known changes to the task organization. However, it must be clear to engineers supporting maneuver battalions that changes in task organization are for planning and are not effective until after an order is received by the supported battalion from the brigade.

Earliest Time of Move

This section states the earliest possible time that units must be ready to move. The battalion commander may give actual movement times, if known, to units under his command. The earliest time of move is critical to synchronizing sustainment operations to support future missions.

Nature and Time of Operation

This section provides recipients with as much information about the brigade plan as possible to foster parallel planning and preparations and to set priorities. Depending on the maturity of the planning process, this section may include a concept of engineer operations or tentative scheme of engineer operations. Orders for preliminary action may also be included, such as—

- Assigning engineer tasks, such as tactical/technical reconnaissance.
- Establishing Class IV/Class V supply points.
- Moving to linkup points.

These orders are normally qualified as "be-prepared" or "on-order" tasks, depending on how the plan is established. Orders to engineers supporting maneuver battalions are always on-order tasks, with execution instructions coming through maneuver headquarters-generated orders.

Time and Place of Orders Group

Engineer units under the brigade commander are told when and where to receive the entire order and who will attend. Units should identify the composition of the orders group in their SOP.

Administrative and Logistical Information

This includes instructions and warning information on changes in unit logistics operations and linkup with maneuver sustainment systems, as required by future operations. This information may also direct movement to assembly areas and provide instructions for sustainment after movement.

Acknowledge

An acknowledgment of receipt is always required to ensure that the WO is received by all addressees.

ENGINEER BATTALION OPORD

The battalion commander issues an OPORD to all engineer units under his command. Once the task organization is effected, all

instructions and missions to engineers supporting maneuver battalions/TFs are conveyed in brigade orders and are addressed to maneuver battalion commanders. The engineer battalion OPORD is outlined in the following paragraphs (see *Figure D-4, pages D-17 through D-23,* for an example). *Figure D-5, page D-24,* shows an engineer execution matrix. When an order is an operation plan (OPLAN) instead of an OPORD, the assumptions on which the plan is based are included at the end of the "Situation" paragraph.

ENGINEER BATTALION FRAGO

The battalion commander frequently needs to modify his OPORD to make changes in engineer operations that allow the brigade to take advantage of tactical opportunities. He can do this by issuing a FRAGO. The battalion commander issues FRAGOs only to engineer units under his command. Changes in instructions to engineers supporting maneuver battalions in command relationships are conveyed through input to a brigade FRAGO. A FRAGO does not have a specified format, but an abbreviated OPORD format is usually used. The key to issuing a FRAGO is to maximize the use of the current OPORD by specifying only information and instructions that have changed. The battalion commander is rarely afforded the opportunity to issue FRAGOs to his subordinate leaders face-to-face. He normally issues them over the radio. The battalion commander may use his XO or CSM to issue a FRAGO in person to subordinates. This ensures that direct coordination is made and that graphics are distributed to platoon leaders. A FRAGO usually contains the following elements:

- Changes to task organization. Lists any required changes to unit task organizations made necessary by modifications to the OPORD.

- Situation. Includes a brief statement of current enemy and friendly situations, which usually gives the reason for the FRAGO. It may also update subordinates on the current status of brigade-level engineer missions.

- Concept. Gives changes to the scheme of engineer operations and the corresponding changes to subunit tasks. It must also include any changes in the brigade or company commander's intent.

- Coordinating instructions. Includes changes to "Service Support" and "Command and Signal" paragraphs of the current OPORD made necessary by the change in the scheme of engineer operations.

Classification
(Place the classification at the top and bottom of every page of the OPORD.)

Copy___of___copies
Issuing headquarters
Place of issue (coordinates)
Date-time group of signature

OPERATION ORDER NUMBER ____ (code name, if used)

Reference(s): Map(s) or other references required.

Time Zone Used Throughout the Order:

Task Organization:

- Include all engineer HQ of units under brigade control.
- Include all engineer HQ of organic units if the OPORD is the initial order for an operation.
- List companies and special platoons task-organized to HQ other than their parent unit.
- List special equipment if not clear in the unit task organization.
- Streamline C^2.
- Address command or support relationships, as necessary.

1. SITUATION.

a. Enemy Forces.

(1) Terrain and Weather. Include—

- Critical aspects of the terrain that affect operations.
- Critical and decisive terrain in a brigade's area that relates to operations.
- Expected weather conditions and their impact on operations.
- Light data and its impact on engineer missions.

Figure D-4. Engineer battalion OPORD

(2) Enemy Situation. Include—

- A macro picture of enemy forces facing a brigade.
- The current disposition of enemy forces, including the location of major enemy units (known and plotted), and the enemy's strength, designation (if known), composition, and current activities.
- Enemy engineer activities and capabilities.
- The most probable enemy COA.
- Enemy activities, capabilities, and COAs that affect brigade-level engineer operations.

b. Friendly Forces.

(1) Higher. Include the—

- Brigade mission and a commander's intent.
- Description of a brigade's plan. Highlight those aspects of the plan that give purpose to the missions.
- Brigade SOEO (the same as in a brigade OPORD and a brigade engineer annex).

(2) Adjacent. Highlight missions of adjacent divisions and engineer units that impact brigade missions.

c. Attachments and Detachments.

- List attachments and detachments of organic and supporting engineers to a brigade, as necessary, to clarify the task organization.
- Highlight any attachments and detachments that occur during an operation, including the time or event that triggers the change.

2. MISSION. Include—

- Who (the engineer battalion organization).
- What, when, where, and why (the brigade mission). ("What" also includes any essential brigade-level engineer missions.)

Figure D-4. Engineer battalion OPORD (continued)

3. EXECUTION.

Intent

- Include a clear, concise statement of what the force must do to succeed with respect to the enemy and the terrain and to the desired end state.
- Provide the link between the mission and the concept of operation by stating the key tasks that, along with the mission, are the basis for subordinates to exercise initiative when unanticipated opportunities arise or when the original concept of operation no longer applies.
- Express intent in four or five sentences. This is mandatory for all orders.

a. Concept of Operation. Ensure that a concept of operation—

- Is a single paragraph. It may be divided into two or more subparagraphs.
- Is concise and understandable.
- Describes—
  - — The employment of subordinate elements.
  - — The integration of other elements or systems within the operation.
  - — Any other aspects of the operation the commander considers appropriate to clarify the concept and to ensure unity of effort.

NOTE: Depending on the operation, the following subparagraphs may be required within the concept of operation.

(1) Maneuver.

(2) Fires.

(3) Engineer. Focus on how the forces under battalion control will accomplish their assigned tasks.

(4) Air defense.

NOTE: A sketch or sand table should be used to explain a concept of operation when briefing an OPORD, or a map with an overlay should be used for very small groups.

b. Tasks to Subordinate Units.

Figure D-4. Engineer battalion OPORD (continued)

- Include a clear, concise listing of all tasks assigned to engineer units remaining under a battalion commander's control.
- List tasks assigned by unit; tasks are generally listed in the order they will be executed during the operation.
- Distinguish "be-prepared" and "on-order" tasks from normal tasks.
- Ensure that tasks/instructions common to two or more units are not included.
- Ensure that all brigade-level missions are identified during the estimate process, if necessary.

c. Coordinating Instructions.

- List tasks and instructions that are common to two or more units subordinate to a battalion organization.
- Include all pertinent coordinating instructions listed in a brigade order.
- List SOP orders only if they are required for emphasis or have changed due to the mission.
- Include reporting requirements common to two or more units if not covered in the "Signal" paragraph.
- Authorize direct coordination between subordinate or adjacent engineer-specific tasks.
- Give the time that the task organization is effective.
- Include relevant environmental considerations or protection measures, or place them in an environmental annex.

4. SERVICE SUPPORT.

a. Support Concept.

- Provide subordinates with the general concept of logistics support for units under a battalion commander's control throughout an operation.
- Identify, in general, primary and backup (emergency) means of subunit sustainment for each type of engineer unit under a battalion commander's control. Address who (companies); how (area support, unit support, supply-point distribution, and unit distribution); where (BSAs and FSBs); and what (classes of supply and critical services).

Figure D-4. Engineer battalion OPORD (continued)

- Ensure that the concept is consistent with the task organization and command or support relationships.
- Make maximum reference to brigade CS graphics.
- List the locations of key CSS nodes as they apply to the concept for logistics support.

b. Materiel and Services.

(1) Supply. For each class of supply—

- List the allocation and CSRs for each unit, based on missions.
- List basic loads to be maintained by a unit.
- List the method of obtaining supplies, if different from the support concept. **NOTE: Mission logistics may be different than unit (scheduled) logistics.**
- Address any special arrangements or plans to sustain specific mission needs (Class IV/V or Class III push to sustain engineer preparation of defenses).
- List the details of the MICLIC/Volcano/MOPMS reload plan, as applicable.

(2) Transportation.

- List primary, alternate, and contaminated MSRs during an operation.
- State allocations of division or corps haul assets.

(3) Maintenance. List the—

- Concept of maintenance and recovery support.
- Maintenance priorities by vehicle, unit, or a combination of both.
- Authority for controlled substitution.

c. Medical Evacuation and Hospitalization. For each type of engineer unit, indicate the primary and backup means of medical evacuation and hospitalization, including locations of health-service facilities providing support on an area or unit basis.

Figure D-4. Engineer battalion OPORD (continued)

d. Personnel Support.

- Identify the method of handling EPWs and locations of EPW collection points.
- Identify the method of receiving mail, religious services, and graves registration for each type of unit under a battalion commander's control.

e. Civil-Military. Identify engineer supplies, services, or equipment provided by the HN.

5. COMMAND AND SIGNAL.

a. Command.

- List the location of key leaders and C^2 nodes throughout an operation.
- Identify the locations and planned movements of key brigade C^2 nodes.
- Designate the logical chain of command.

b. Signal.

- Identify any communication/signal peculiarities for the operation not covered in the SOP.
- Identify critical reporting requirements of subordinates if it is not covered in the coordinating instructions or SOP.
- Designate nets for mission and routine reports.

ACKNOWLEDGE

Battalion commander's signature
Rank

OFFICIAL:
(Authentication)

Figure D-4. Engineer battalion OPORD (continued)

ANNEXES: Possible annexes may include but are not limited to—

- Execution matrix
- Intelligence annex
- CSS annex
- Movement annex
- Environmental annex

Overlays:

- Situation template
- Brigade maneuver graphics
- Engineer graphics, as necessary
- Brigade CSS overlay
- Brigade obstacle plan
- Environmental considerations

Distribution:

CLASSIFICATION

Figure D-4. Engineer battalion OPORD (continued)

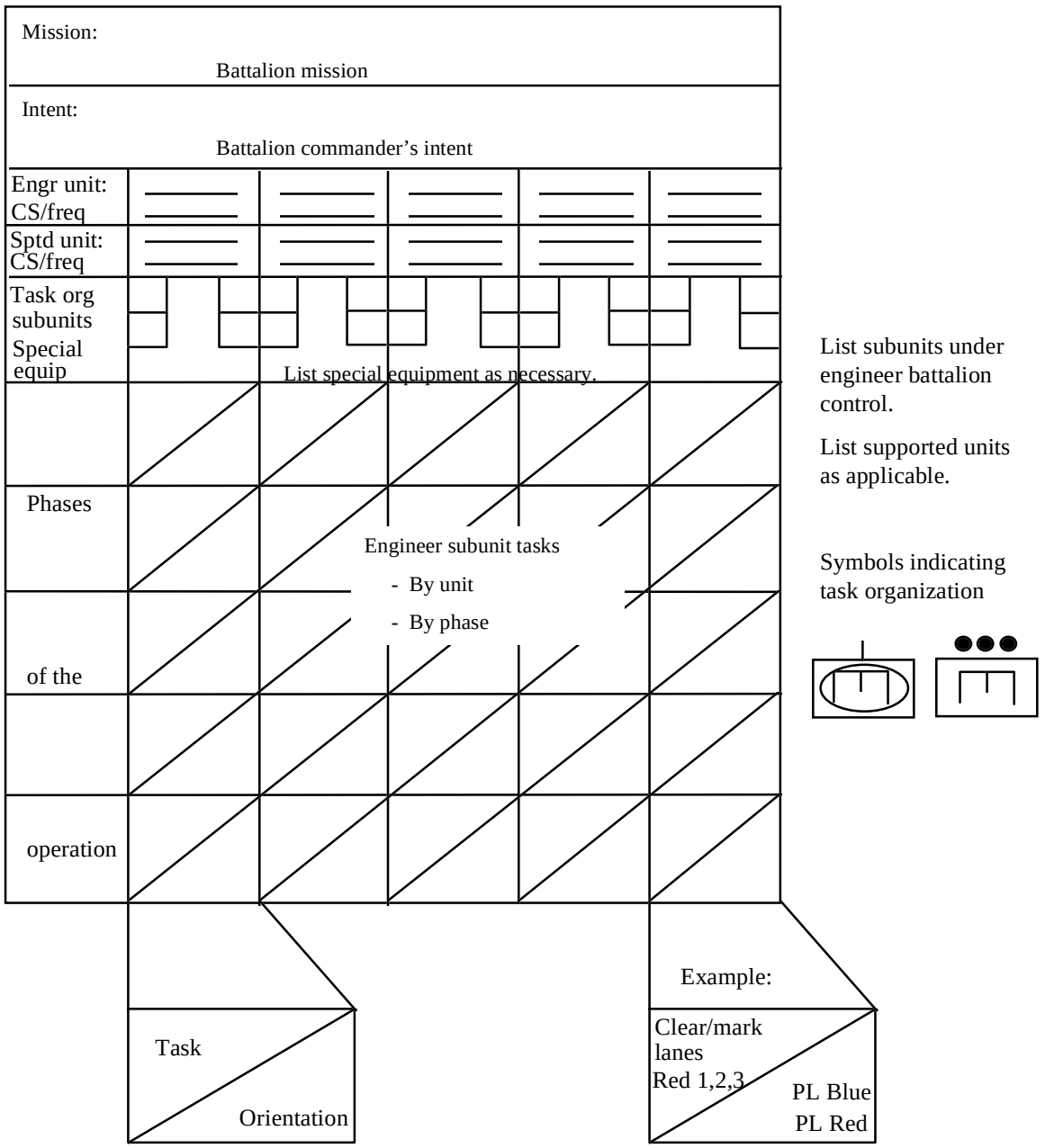


Figure D-5. Engineer execution matrix

Glossary

12Z50	E8
1SG	first sergeant
A&L	administrative and logistics
A/1	Alpha/1st platoon
A/2	Alpha/2d platoon
A/3	Alpha/3d platoon
AA	avenue of approach
ABE	assistant brigade engineer
ABF	attack by fire
ACE	M9 armored combat earthmover
AD	air defense
ADA	air-defense artillery
ADAM	area denial artillery munition
ADE	assistant division engineer
AG	Adjutant General
ALOC	administrative logistic center
AO	area of operation
APC	armored personnel carrier
approx	approximate

AT	antitank
ATP	ammunition transfer point
attn	attention
AVLB	armored vehicle launched bridge
B/1	Bravo/1st platoon
B/2	Bravo/2d platoon
B/3	Bravo/3d platoon
BAS	battalion aid station
BHL	battle handover line
BMO	battalion maintenance officer
BMT	battalion maintenance technician
BOS	battlefield operating system
BP	battle position
BSA	brigade support area
C/1	Charlie/1st platoon
C/2	Charlie/2d platoon
C/3	Charlie/3d platoon
C^2	command and control
CAS	close air support
CATK	counterattack

EEP	engineer equipment parks
EGA	enhanced graphics adapter
EM	enlisted men
engr	engineer
EOD	emergency ordnance disposal
EPW	enemy prisoner of war
equip	equipment
ERP	engineer regulating point
FASCAM	family of scatterable mines
FAX	facsimile
FEBA	forward edge of the battle area
FIST	fire-support team
FIST-V	fire-support-team vehicle
fld	field
FLOT	forward line of own troops
FM	field manual
FM	frequency modulated
FRAGO	fragmentary order
freq	frequency
FS	fire support
FSB	forward support battalion
FSCOORD	fire-support coordinator

FSO	fire-support officer
FSP	forward supply point
G1	Assistant Chief of Staff, G1 (Personnel)
GS	general support
HATK	hasty attack
HEMTT	heavy expanded mobility tactical truck
HET	heavy-equipment transporter
HHC	headquarters and headquarters company
HLZ	helicopter landing zone
HMMWV	high mobility, multipurpose wheeled vehicle
HN	host nation
HQ	headquarters
HVT	high-value target
hvy	heavy
IBM	International Business Machine
IEW	intelligence electronic warfare
IPB	intelligence preparation of the battlefield
IR	intelligence requirements
JP-8	jet propulsion

KCLFF	kitchen, company-level field feeding
km	kilometer
LC	line of contact
LD	line of departure
LO	liaison officer
LOA	limit of advance
LOC	lines of communication
LOGPAC	logistical package
LOGSTAT	logistical status
LOS	line of sight
LP	listening post
LRP	logistics release point
m	meter(s)
M/CM/S	mobility, countermobility, and survivability
M/S	mobility and survivability
MBA	main battle area
MCOO	modified combined obstacle overlay
METT-T	mission, enemy, terrain, troops, and time available
MGB	medium girder bridge, M3
MHE	material-handling equipment
MICLIC	mine-clearing line charge

MKT	mobile kitchen trailer
MOGAS	motor gasoline
MOPMS	modular pack mine system
MOPP	mission-oriented protective posture
MOS	military occupational specialty
MP	military police
MRB	motorized rifle battalion
MRC	motorized rifle company
MRE	meals, ready-to-eat
MRP	motorized rifle platoon
MRR	motorized rifle regiment
MSB	main support battalion
MSE	mobile subscriber equipment
MSL	mean sea level
MSR	main supply route
MSRT	mobile subscriber radio telephone
MST	maintenance support team
MTC	movement to contact
NAI	named area of interest
NBC	nuclear, biological, and chemical
NCO	noncommissioned officer
NCOIC	noncommissioned officer in charge

NCS	net control station
NLT	no later than
O&I	observation and intelligence
OBSTINTEL	obstacle intelligence
OCOKA	observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach
OIC	officer in charge
OOTW	operations other than war
OP	observation post
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
org	organize
PAC	personnel and administration center
PAL	point, area, and linear
PCI	precombat inspection
PIR	priority intelligence requirements
PL	phase line
PLL	prescribed load list
POL	petroleum, oils, and lubricants
POP	point of penetration

prof	profile
PSNCO	personnel staff noncommissioned officer
PX	post exchange
QSS	quick supply store
R&S	reconnaissance and surveillance
RAAMS	remote antiarmor mine system
RB-15	rubber boat
RFA	restrictive fire area
RGB	red, blue, and green
Ribbon	ribbon bridge
RP	release point
RRP	replacement receiving point
RSR	required supply rate
RX	repairable exchange
S&S	supply and service
S1	Adjutant (US Army)
S2	Intelligence Officer (US Army)
S3	Operations and Training Officer (US Army)
S4	Supply Officer (US Army)
SA	staging area
SALUTE	size, activity, location, unit, time, and equipment

SBF	support by fire
SCATMINE	scatterable mine
SEE	small emplacement excavator
SEN	small extension node
SICPS	standard integrated command post system
SIGO	signal officer
SINCGARS	single-channel, ground-to-air radio system
SOEO	scheme of engineer operations
SOP	standing operating procedure
spt	support
sptd	supported
STE-ICE	simplified test equipment internal combustion engine
synch	synchronization
TAI	target area of interest
TAMMS	The Army Maintenance Management System
TCP	traffic control point
TF	task force
TLP	troop-leading procedures
TOC	tactical operations center
TOE	table(s) of organization and equipment
TOW	tube-launched, optically tracked, wire-guided
TPL	time phase line

TTADB	tactical terrain analysis data base
TTP	tactics, techniques, and procedures
TVA	target-value analysis
ULLS	unit-level logistics system
UMCP	unit maintenance collection point
US	United States
UTM	universal transverse mercator
VAP	visible area plot
vert	vertical
WO	warning order
XO	executive officer